



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,422	03/02/2004	David A. Trueba	10437.0074.NPUS01	2421
23369 7590 01/30/2007 HOWREY LLP C/O IP DOCKETING DEPARTMENT 2941 FAIRVIEW PARK DRIVE, SUITE 200 FALLS CHURCH, VA 22042-7195			EXAMINER OH, TAYLOR V	
			ART UNIT 1625	PAPER NUMBER
			MAIL DATE 01/30/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No.	Applicant(s)	
	10/708,422	TRUEBA ET AL.	
	Examiner	Art Unit	
	Taylor Victor Oh	1625	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 29 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: \_\_\_\_\_.
- Claim(s) objected to: \_\_\_\_\_.
- Claim(s) rejected: \_\_\_\_\_.
- Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see pages 2-6.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_
13. ☐ Other: \_\_\_\_\_.

It is noted that applicants have filed an Amendment after the Final Rejection on 12/29/06; applicants' attorney has addressed the issues of record. The proposed amendment will be entered ; however, it is not in a condition for allowance.

**The Status of Claims**

Claims 1-6 are pending.

Claims 1-6 are rejected.

Claims 7-18 are withdrawn.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejection of Claims 1-6 under 35 U.S.C. 103(a) as being unpatentable over Miura et al (US 5,625,095).

The rejection of Claims 1-6 under 35 U.S.C. 103(a) as being unpatentable over Miura et al (US 5,625,095) has been maintained with the reasons of record on 5/2/06.

Art Unit: 1625

Applicants' attorney has addressed the issues of record; however, has not rebutted the claim rejections *I-6* under 35 USC 103 (a).

Applicants' Argument

Applicants argue the following issues:

- a. Mira does not identify the problem solved by the claimed invention, does not indicate that any process control system improvements are needed; does not describe a control system for its process nor does it provide any suggestion about the composition of streams from its distillation column is used to control the operation or feed conditions of its distillation column or extractor ; does not teach or suggest measuring the density of the overhead the extract and the raffinate and adjusting at least one process variable associated with the distillation apparatus or the extraction step in response to the measured density or a relative concentration calculated as recited in claims.

Applicants' arguments have been noted, but the arguments are not persuasive.

First, regarding the applicants' argument , the Examiner has noted applicants' arguments. However, the 103 rejection does not have to cover every limitation of the claimed process, but it only have to cover the generic concept and process directly related to the claimed process, so that the skilled artisan in the art would expect the prior art process to have a motivation similar to the claimed process . Concerning unspecified measurement of the density of the overhead , the prior art teaches indirectly the concentration of various compositions in the overhead 20

Art Unit: 1625

**withdrawn from the methyl iodide—acetic acid splitter column 14 contains methyl iodide of 5 to 90 weight %, acetaldehyde of 0.05 to 50 weight %, methyl acetate of 0 to 15 weight %, acetic acid of 0 to 80 weight %, moisture of 0.1 to 40 weight %, and other carbonyl impurities.** (see col. 9 ,lines, 1-

6). In addition, it is well-known fact in the art that the density (m/v) is directly related to the concentration (m/ V). Therefore, it would have been obvious to the skilled artisan in the art to be motivated to monitor the density of the various components of the overhead in order to maximize the efficiency of the process since the density (m/v) is directly proportional to the concentration (m/ V).

Regarding the adjustment of heating rate, the reference does teach the condition of the overhead at a temperature of 55<sup>0</sup> C or higher (see col. 8 ,lines 22-26) at which the separation of acetaldehyde and methyl iodide can be conducted by distilling the mixed liquid containing acetaldehyde and methyl iodide; also, controlling the operation pressure and the operation temperature in a distillation column has made it possible to separate and remove acetaldehyde (see col. 9 ,lines 46-50). From these teachings, it is quite possible to the skilled artisan in the art to be motivated to adjust the heating rate in order to make the separation process of acetaldehyde and methyl iodide more efficient.

With respect to the adjustment of the water feed rate to the extraction, the prior art does mention that the extraction is carried out at a temperature of 0 to 100<sup>0</sup> C for 1 second to 1 hour (see col . 7 , lines 57-58); it also recommends to use every suitable apparatus known in terms of technique and cost (see col. 7 ,lines 60-63). Furthermore, Table 1 shows the % of the water composition in the extraction material (see col. 13 ,line 34) as shown below (see col. 13 ,line 34)

:

Art Unit: 1625

**TABLE 1**

	Composition (weight %)				
	Extraction material	Extract	Raffinate	Distillate	Bottom liquid
Methyl iodide	68.3	1.0	97.0	4.2	0
Formic acid	0	0	0	0	0.2
Water	0.7	76.8	0.2	2.4	99.8
Acetaldehyde	29.0	21.8	0.8	91.4	0
Paraldehyde	0.1	0	0.1	0	0
Alkanes	1.0	0	1.5	0	0
Others	0.9	0.5	0.4	2.0	0

Therefore, it would be obvious to the skilled artisan in the art to figure out how to adjust the water feed rate to the extraction. Thus, the prior art is still relevant to the issues of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on 571-272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1625

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Taylor Victor Oh, MSD, LAC

Primary Examiner

Art Unit : 1625

\*\*\*

